#7

OIPE

ENTERED
P.5

RAW SEQUENCE LISTING   DATE: 03/13/2002
PATENT APPLICATION: US/09/771,208   TIME: 14:31:43

Input Set : **A:\407T-923710US.txt**
Output Set: **N:\CRF3\03132002\I771208.raw**

```
 3 <110> APPLICANT: MEDRANO, JUAN
 4        BRADFORD, ERIC
 5        HORVAT, SIMON
 7 <120> TITLE OF INVENTION: CLONING OF A HIGH-GROWTH GENE
 9 <130> FILE REFERENCE: 407T-923710US
11 <140> CURRENT APPLICATION NUMBER: US 09/771,208
12 <141> CURRENT FILING DATE: 2001-01-26
14 <150> PRIOR APPLICATION NUMBER: US 08/999,477
15 <151> PRIOR FILING DATE: 1997-12-29
17 <160> NUMBER OF SEQ ID NOS: 20
19 <170> SOFTWARE: PatentIn version 3.0
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 1667
23 <212> TYPE: DNA
24 <213> ORGANISM: Mus musculus
26 <400> SEQUENCE: 1
27 ttgccctcaa caaagatggt ctttatggta caggttccct agcagtctgg attccggttg      60
29 tagttttagt tattcttttt tttttttttt taaacggtac gtggtcgcag acgaagaaat     120
31 ggaagccaga gacaagcagg tactccgctc cctgcgtctg gagctgggtg ccgaggtact     180
33 ggtggaagga ctggttcttc agtaccttta ccaggaagga attttgacag aaaaccacat     240
35 tcaagaaatc aaagctcaaa ccacaggcct ccggaagaca atgctgttgc tggacatcct     300
37 gccttccagg ggccccaaag cttttgacac cttcctcgat tccctccagg aatttccctg     360
39 ggtaagagag aagctggaga aggcgagaga ggaagtctca gccgagctgc ctacaggtga     420
41 ctggatggcc ggaatcccct cacacatcct cagcagctcg ccatcagacc agcagattaa     480
43 ccagctggct cagaggctag gcccggagtg ggagcccgtg gtcctgtctc tgggactgtc     540
45 ccagaccgac atctaccgct gcaaggccaa ccatccccac aacgtgcatt cgcaggtggt     600
47 ggaggccttt gtccgctggc gccagcgttt tgggaagcag gccaccttcc taagcttaca     660
49 caagggcctc caggcaatgg aggctgatcc ctccctgctc cagcacatgc tggagtgacc     720
51 tgaccccccc ccgcgcccccc ccccacttg ctgtgggggt ggtggggcgt gggttcccaa     780
53 gtcacactgg ctgaaccgga ctttctcag caggtggctt tgttctgggc ttttcagtga     840
55 tctgtttacg aaagagatc gtccaccact cactcaacca tcgattggct ttaattgctt     900
57 gaagactgcg ctgttgtaac tatggtttgg aactttgtgg ctggccttta acaggaggcc     960
59 agaaaaaaca caacacccac cctacccaac cccccaaaaa atcatgctac agcatcgaat    1020
61 gcaggtgtcc tgcatacaag gcagctacac ttgtgttgcc tggagactgg attgtgcatt    1080
63 tagctcttca taatggtgat gataataaaa aagcaaattg tgatatagaa tgtgcctctt    1140
65 tcaatgagag agtattatat cacacacaca cacacacaca cacacacaca tacacacaca    1200
67 cacaccaatc ttctgttgca tagacggagg gtgtaaaaat atgggagtgg agcaagattg    1260
69 atagcagtca tgtgacgacg gagataaaata actcaggcag gatgtataga ttaagcatga    1320
71 gacaccgaag ctccctgcag aggccaggga gagaacggaa gaccttcatc ttaacaaatt    1380
73 gtatgaggag tctctgtcca tttgttaaag gcattggatc agagacaaga gggctcagtg    1440
75 tttctcttga ggcctgaatg gctgaaggcg gtgagttccc gaggggcgtc atgggttgtc    1500
77 cagcctttca ttaactgcac atagtgttag ccagacaggt gtacgtgttt gtcatcccat    1560
79 ctaagagact gaagcaggag gatcacctgt acatgactgc ttctttcaac attttaaaat    1620
```

RAW SEQUENCE LISTING   DATE: 03/13/2002
PATENT APPLICATION: US/09/771,208   TIME: 14:31:43

Input Set : **A:\407T-923710US.txt**
Output Set: **N:\CRF3\03132002\I771208.raw**

```
81 gtgtaacttc tattaaattc tctcagtgca aaaaaaaaaa aaaaaaa          1667
84 <210> SEQ ID NO: 2
85 <211> LENGTH: 304
86 <212> TYPE: DNA
87 <213> ORGANISM: Mus musculus
89 <400> SEQUENCE: 2
90 gaagaaatgg aagccagaga caagcaggta ctccgctccc tgcgtctgga gctgggtgcc    60
92 gaggtactgg tggaaggact ggttcttcag tacctttacc aggaaggaat tttgacagaa   120
94 aaccacattc aacaaatcaa agctcaaacc acaggcctcc ggaagacaat gctgttgctg   180
96 gacatcctgc cttccagggg ccccaaagct tttgacacct tcctcgattc cctccaggaa   240
98 tttccctggg taagagagaa gctggagaag gcgagagagg aagtctcagc cgagctgcct   300
100 acag                                                               304
103 <210> SEQ ID NO: 3
104 <211> LENGTH: 160
105 <212> TYPE: DNA
106 <213> ORGANISM: bovine sp
108 <400> SEQUENCE: 3
109 ggaaatggag gctagagaca agcaagtgct tcgctccctt cgcctggagt tgggtgcaga    60
111 ggtactggtg gaggggctag tcctccagta tctttatcag gaaggggtct tgacagaaag   120
113 ccacgttcaa gaaattaaag ctcaagccac aggcctccgg                        160
116 <210> SEQ ID NO: 4
117 <211> LENGTH: 539
118 <212> TYPE: PRT
119 <213> ORGANISM: Mus musculus
121 <400> SEQUENCE: 4
123 Met Glu Thr Gly Leu Ala Leu Ala Ala Arg Gly Ala Ser Pro Leu Tyr
124 1               5                  10                  15
126 Ser Gly Leu Asn Val Ala Leu Leu Glu Ala Arg Gly Ser Glu Arg Leu
127             20                  25                  30
129 Glu Ala Arg Gly Leu Glu Gly Leu Leu Glu Gly Leu Tyr Ala Leu Ala
130         35                  40                  45
132 Gly Leu Val Ala Leu Leu Glu Val Ala Leu Gly Leu Gly Leu Tyr Leu
133     50                  55                  60
135 Glu Val Ala Leu Leu Glu Gly Leu Asn Thr Tyr Arg Leu Glu Thr Tyr
136 65                  70                  75                  80
138 Arg Gly Leu Asn Gly Leu Gly Leu Tyr Ile Leu Glu Leu Glu Thr His
139             85                  90                  95
141 Arg Gly Leu Ala Ser Asn His Ile Ser Ile Leu Glu Gly Leu Asn Gly
142             100                 105                 110
144 Leu Ile Leu Glu Leu Tyr Ser Ala Leu Ala Gly Leu Asn Thr His Arg
145         115                 120                 125
147 Thr His Arg Gly Leu Tyr Leu Glu Ala Arg Gly Leu Tyr Ser Thr His
148     130                 135                 140
150 Arg Met Glu Thr Leu Glu Leu Glu Leu Glu Ala Ser Pro Ile Leu Glu
151 145                 150                 155                 160
153 Leu Glu Pro Arg Ser Glu Arg Ala Arg Gly Gly Leu Tyr Pro Arg Leu
154             165                 170                 175
156 Tyr Ser Ala Leu Ala Pro His Glu Ala Ser Pro Thr His Arg Pro His
157         180                 185                 190
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/771,208

DATE: 03/13/2002
TIME: 14:31:43

Input Set : A:\407T-923710US.txt
Output Set: N:\CRF3\03132002\I771208.raw

```
159 Glu Leu Glu Ala Ser Pro Ser Glu Arg Leu Glu Gly Leu Asn Gly Leu
160         195             200             205
162 Pro His Glu Pro Arg Thr Arg Pro Val Ala Leu Ala Arg Gly Gly Leu
163     210             215             220
165 Leu Tyr Ser Leu Glu Gly Leu Leu Tyr Ser Ala Leu Ala Ala Arg Gly
166 225             230             235             240
168 Gly Leu Gly Leu Val Ala Leu Ser Glu Arg Ala Leu Ala Gly Leu Leu
169             245             250             255
171 Glu Pro Arg Thr His Arg Gly Leu Tyr Ala Ser Pro Thr Arg Pro Met
172         260             265             270
174 Glu Thr Ala Leu Ala Gly Leu Tyr Ile Leu Glu Pro Arg Ser Glu Arg
175         275             280             285
177 His Ile Ser Ile Leu Glu Leu Glu Ser Glu Arg Ser Glu Arg Ser Glu
178     290             295             300
180 Arg Pro Arg Ser Glu Arg Ala Ser Pro Gly Leu Asn Gly Leu Asn Ile
181 305             310             315             320
183 Leu Glu Ala Ser Asn Gly Leu Asn Leu Glu Ala Leu Ala Gly Leu Asn
184             325             330             335
186 Ala Arg Gly Leu Glu Gly Leu Tyr Pro Arg Gly Leu Thr Arg Pro Gly
187             340             345             350
189 Leu Pro Arg Val Ala Leu Val Ala Leu Leu Glu Ser Glu Arg Leu Glu
190         355             360             365
192 Gly Leu Tyr Leu Glu Ser Glu Arg Gly Leu Asn Thr His Arg Ala Ser
193     370             375             380
195 Pro Ile Leu Glu Thr Tyr Arg Ala Arg Gly Cys Tyr Ser Leu Tyr Ser
196 385             390             395             400
198 Ala Leu Ala Ala Ser Asn His Ile Ser Pro Arg His Ile Ser Ala Ser
199             405             410             415
201 Asn Val Ala Leu His Ile Ser Ser Glu Arg Gly Leu Asn Val Ala Leu
202             420             425             430
204 Val Ala Leu Gly Leu Ala Leu Ala Pro His Glu Val Ala Leu Ala Arg
205             435             440             445
207 Gly Thr Arg Pro Ala Arg Gly Gly Leu Asn Ala Arg Gly Pro His Glu
208     450             455             460
210 Gly Leu Tyr Leu Tyr Ser Gly Leu Asn Ala Leu Ala Thr His Arg Pro
211 465             470             475             480
213 His Glu Leu Glu Ser Glu Arg Leu Glu His Ile Ser Leu Tyr Ser Gly
214             485             490             495
216 Leu Tyr Leu Glu Gly Leu Asn Ala Leu Ala Met Glu Thr Gly Leu Ala
217         500             505             510
219 Leu Ala Ala Ser Pro Pro Arg Ser Glu Arg Leu Glu Leu Glu Gly Leu
220         515             520             525
222 Asn His Ile Ser Met Glu Thr Leu Glu Gly Leu
223     530             535
225 <210> SEQ ID NO: 5
226 <211> LENGTH: 20
227 <212> TYPE: DNA
C--> 228 <213> ORGANISM: Artificial
230 <220> FEATURE:
```

RAW SEQUENCE LISTING   DATE: 03/13/2002
PATENT APPLICATION: US/09/771,208   TIME: 14:31:43

Input Set : **A:\407T-923710US.txt**
Output Set: **N:\CRF3\03132002\I771208.raw**

```
231 <223> OTHER INFORMATION: PCR primer
233 <400> SEQUENCE: 5
234 tggaagccag agacaagcag                                          20
237 <210> SEQ ID NO: 6
238 <211> LENGTH: 21
239 <212> TYPE: DNA
```
C--> **240 <213> ORGANISM: Artificial**
```
242 <220> FEATURE:
243 <223> OTHER INFORMATION: PCR primer
245 <400> SEQUENCE: 6
246 agaaatggaa gccagagaca a                                        21
249 <210> SEQ ID NO: 7
250 <211> LENGTH: 22
251 <212> TYPE: DNA
```
C--> **252 <213> ORGANISM: Artificial**
```
254 <220> FEATURE:
255 <223> OTHER INFORMATION: PCR primer
257 <400> SEQUENCE: 7
258 cttttgacac cttcctcgat tc                                       22
261 <210> SEQ ID NO: 8
262 <211> LENGTH: 21
263 <212> TYPE: DNA
```
C--> **264 <213> ORGANISM: Artificial**
```
266 <220> FEATURE:
267 <223> OTHER INFORMATION: PCR primer
269 <400> SEQUENCE: 8
270 ctcaaaccac aggcctccgg a                                        21
273 <210> SEQ ID NO: 9
274 <211> LENGTH: 13908
275 <212> TYPE: DNA
276 <213> ORGANISM: Mus musculus
278 <400> SEQUENCE: 9
279 aaaagagggt ctgtgcaaag gcccaggagg gagaaaaaaa caaacaaaca acaacaaaaa    60
281 aaaacacatg ctatggtttg aatggaaaaa tatcccatga aggcttatgt atttgagtca   120
283 cttcttagct ggtagcactc acttttgaag gctgtaaagc cttcaatctg tgggtcctac   180
285 ccctttggca aaccttgatc tccaaagtta cataagcaca ggcacacact tccacttcct   240
287 ctgaggtttt ctaccaagaa aggatcaacc attcataaaa tgttggtcct agtgaaccct   300
289 gcacattgta gaggcttaaa aagtttaatt tgggcctcca actcactaca caggaactcc   360
291 agcgggatcc gcctgtccgt tcatgctaac ctttcaccga catcttgttt ttaagtttac   420
293 agaaaacgtt agggacctaa agaaggtcat tacattacag tacattacag tacaacagaa   480
295 gttacaaagt agcaatgagg ggcttgggga tttagctcag tgctagagcg cttgcctagc   540
297 aagtgcaaga ccctaggttc ggtcctcagc tctgaaaaat caaaacaaaa caaaacaaag   600
299 tagcaatgat aataatttta tggttgaggg gtcaccatga tatgaggaac tgtattaaac   660
301 ggtcgctgca ttagggagga tgaggaccac tgtggggctc agctgaagga agtgagttgc   720
303 tggtgtaggg caccggagtg ctagatgtaa accggtttcc tgtctccctt ctaaggctga   780
305 ctgcaccact aattcctgcc tcccgtggag ggtgctttcc aggctccaag ccttcctgcc   840
307 atgttggaat gtgtcctgtg aaccatgaac cgagatcaat ctttcctccc ttccatcacc   900
309 tctgccaggt ggtttggtca tagtactcag tagagtaagg aggctggaag atttactaca   960
311 cctgacaaag aaaaattaat ctgtatgatc tcaaaaaaaa aaaaaaaaaa aacaccacca  1020
```

RAW SEQUENCE LISTING
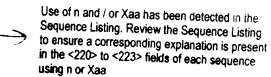PATENT APPLICATION: US/09/771,208

DATE: 03/13/2002
TIME: 14:31:43

Input Set : A:\407T-923710US.txt
Output Set: N:\CRF3\03132002\I771208.raw

```
313 ccaacaacaa aaaaaccaac aaaaaaccaa aacccttttag gagtgcagaa gcacaggcac 1080
315 acacttccac ttcctctgag gttttctacc aagaaaggat caaccattca taaaacgttg 1140
317 gtcttagtta tccctgcaca ttgtagaggc ttaaaaagtt taacttgggc ctccaactca 1200
319 ctacacagaa ctccagaggg atccgcctgt ccgttcatgc taacctttca ccgacatctt 1260
321 gttttttaagt ttacagaaaa cgttagggac ctaaagaagg taagcatcct gctaagttac 1320
323 tccctggctt tacacaggct ttctaaaact tgagtaagag gcatccttcc catcaaagat 1380
325 tccaggaaaa cagcctcccc cctccgcggc cacacatacg aatctatcgc tgacaaagcc 1440
327 cctgtaagct ggcttatgtc ctcccctcgc gttcaccatt ctgtaagtgc atagaattat 1500
329 ttaagaggaa aaaaattact gtggataaaa attggttcgg ggccttggaa ttggccggtc 1560
331 gtgttgtgtt tccttccagg gccggcaggc ggggcaccag gcaaggcttg gaagccgcgc 1620
333 ctctctcaac ctctcctggc cacccttgcc caacttcccc atagacacag cttcaactaa 1680
335 aagtggccat tgacctttca agcttttgag cagtggggca acagaacagt atttcaaaga 1740
337 aaaatggtta tcgaaatttc gaatccggtt ttcccatgag tgttttttttt ttgtttttgtt 1800
339 tttctgttaa aaaaaaaaa agtaggtcac attcaaagtg ggtcacgttt caggagccgg 1860
341 cgtgcctgga tgccggcgcg gaggctaggt ggcctcttac agagtgggag gtgagggtcc 1920
343 caataggaaa gaagtactgg gatcaatacg aactccgggt ccctggcttt gcaaggattc 1980
345 acagagacaa acgcaccagg cctgtgaccc cgcaccccac ccgggcacag gtaagggcac 2040
347 ctcctctgta gggtggccag ggtgggtctc ccgaagggca agcaggagtt gagctgagga 2100
349 ggaaaggaga agctgggcaa ggctgatgca ggggactacc agttggagct ccaggggga 2160
351 gggattgagg gcagtctgcg cagctttaag gaggcgctca gctcgtctct ttcctggcct 2220
353 tctaggatgc tggcggaggg gacagtctct ggttcgcttc ccgaggtgcc cgggagtggt 2280
355 agtcgacctg ggcagtggcg tgctagctct agctctgtgt gtgtcttaga gagggaggga 2340
357 cggacatctg agccccgccc ccttcccgca cgctggtcct gcatcccaca tggaggagag 2400
359 gagggtcgcg tctggcaggc gcacagcggg gtggatggct ggcctaaagg ttccctccta 2460
361 cgtggagggc tggggagaag aggggctgct attcgcggga ccgaggtgct cagctgttgc 2520
363 agacacaggg gcaggtactg gtggcttaat aggcattggc tggggacttc tccttgttcc 2580
365 cgagcacccc gaggtgcagg gtcagaggag ggcggagtcg caggcttcca ccccgcagcc 2640
367 accagcacca gcacccgcac cggctctctc cacccggctc ccttgaagcc tgcgcattag 2700
369 cggccggggc ctctttaaag cgctggcggg ggctgcggtc acgtgaggcg gattcctgga 2760
371 aagttcctgg aaagcggcct ccgccgcggc cgggcggggc gcgaggggcg ggaggcgggg 2820
373 agcgagggag gcgcgtcggg ctgggaagtc gcgcgcacac tcggctccgg ggacagacgg 2880
375 ttaactcttg ccaagtctcg ccgcctctgc ggctcccggg ccttgggctt cccccctgaa 2940
377 gcatgagcct ttcctcccgc agccgccaac gctgcgcggg tctcggacag tgcgcgccgg 3000
379 gactccaggc gcgcgccctc aagatccctt gtgcccggag cccggaagct tgcggcaggt 3060
381 accgctcgcg aagcccgaag gttccgcccg gggggacagt ggccgggagg gcggcggggt 3120
383 gcgagcacgg gggcggcggc ggaccgcctg ggcgtccgca gtttagggcg ccccgggaga 3180
385 gttcaagtcg gggctctgcc ccatccggac tcaactgcct cctctctccc gggttccttc 3240
387 tcggtctcgg gaaattttcc gagcacccccc accccccaac aactgctacc caaatttata 3300
389 atcctaataa cctgatctcc cgctcctccc cgccagcctc cgcccttgct cccccacccc 3360
391 accccttctc tttctcccat ctcctccgct tcaactggag ggaaacccgg cactggcgag 3420
393 cagggtgtc agcctggggc ggagaggggg gggggaagct aggcgacgat ccctgggatt 3480
395 tttgtctgcc tttggcgcag aaaaactcgg ttgcttttac tgagcgcaga gccgattgca 3540
397 tccccaggca tctccttcca caaataaacg tcacccgggg aactcagacg gacaccctc 3600
399 cttgcccccct ggctcccccg ccccttgtcc gctggggagg ctgcctagtg cggaggcggc 3660
401 agtcgcggcg gtggaggtaa gacctcagtc ccagttgatg gcatggcccg ctgcgctcgc 3720
403 tgttgcgggc tcagccccgg cctcatttgg agctccggcg ggggctgcac gctccggccg 3780
405 attcctcgac agcgcccgcg gcggcagccg caggagccgc ggtccgcgtt ttggagcgac 3840
407 cgccgctgag cccccccatcc tcgtctggag cgtgctccag gaagcggcag gagtgggggt 3900
409 gaggccgcct ccgaggcagg gatgcagcgg ctggcgcgcc gctagcgcac cgcagcaccc 3960
```

VERIFICATION SUMMARY   DATE: 03/13/2002
PATENT APPLICATION: **US/09/771,208**   TIME: 14:31:44

Input Set : **A:\407T-923710US.txt**
Output Set: **N:\CRF3\03132002\I771208.raw**

```
L:228 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5
L:240 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6
L:252 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7
L:264 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8
L:747 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10
L:763 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11
L:779 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12
L:809 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13
L:821 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14
L:833 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15
L:845 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:16
L:857 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:17
L:869 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:18
L:881 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:19
L:5087 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:5395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:5439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:5469 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:6659 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:6661 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:7101 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:10033 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:10317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:11543 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:11545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:12533 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:12739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:13435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:14005 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:17465 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:19205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:21047 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:21055 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
```